

INTERDEPARTMENTAL CORRESPONDENCE

TO: [REDACTED]

CC: [REDACTED]

DATE: 27 March 1959 25X1

2333.7/8

SUBJECT: Summary of Visit To Washington
on March 13 and 14, 1959

FROM: [REDACTED] 25X1

BLDG.

MAIL STA. 25X1

EXT.

A most interesting, and I hope helpful, visit was had by the writer on March 13 and 14, 1959. All the people contacted were very helpful and assisted wherever they could. The most important purpose was to repair the equipment; this was done as a team effort which served to educate all those involved.

The principal problem in the transmit terminal involved the high power keyer and its effects on the 231D transmitter. After a great deal of investigation, a short was found between a pair of pertinent wires in the high power keyer. This could have developed because the lacing was too tight or because the unit got too hot as a result of the blower being connected backwards.

A major problem in the system was the lack of grid drive to the final on the 231D. The original thought of the technicians working on the equipment was that the high power keyer was drawing so much current off the 500 volt supply that it was affecting the operation of the r-f tubes. After the above mentioned short was removed and with the keyer tubes cut off in the normal manner, the keyer will only draw a little over 100 milliamperes which should not drop the +500 volts appreciably.

The true problem with the 231D is its low final grid drive, even with the keyer completely disconnected. The pair of r-f tubes in the final are rated at 60 milliamperes each which means 120 milliamperes for the pair. The 231D at out [REDACTED] site runs 130 to 150 milliamperes fully loaded whereas your unit could never get above 100 milliamperes on any frequency. Before I left, we decided this was something your people could take care of. After I left, I called and suggested a particular wire which had been left out in another 231D which resulted in similar operation. 25X1

While there, the students replaced the autotune in the exciter which I had mailed to you. The Ferranti bulb assembly was replaced and the slow starting tendencies of the motor was discussed. Some improvement was found when the cover was correctly placed on the unit for optimum gear mesh.

A visit to the receive site found the unit in the non-operating condition upon first arrival. Your people found a tube which had one or more base pins which were not conducting even though properly plugged in. In another drawer, a plug in relay with the same problem was found. In both cases, the sockets were JAN types. Some time was spent trying to make

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the 97 volt transformer available in all drawers through proper phasing of the 117 volt line. This was accomplished in one cabinet but it could not be done in the third cabinet because of an apparent sneak circuit. The tracing of this sneak circuit was left up to your people when complete cabling drawings for the terminal are available.

The visit to the receive and transmit stations was most interesting. I had hoped we would get a chance to talk in person, perhaps on your next visit here.

GJN:tl



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